

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Canceled)

2. (Currently Amended) A semiconductor device comprising:

~~a thin film transistor comprising a semiconductor film formed over a substrate having an insulating surface, said semiconductor film comprising a source region, a drain region, and a channel region between said source and drain regions, wherein said source and drain regions are formed throughout thickness of said semiconductor film;~~

~~a first insulating film comprising an oxide film of said semiconductor film thereon;~~

~~a second insulating film comprising a deposition film over said semiconductor film; and~~

~~a gate electrode formed adjacent to said channel region of said semiconductor film,~~

~~wherein said first insulating film contains at least one halogen element selected from fluorine and chlorine, and~~

~~wherein said semiconductor film contains hydrogen atoms at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $1 \times 10^{21} \text{ cm}^{-3}$, and oxygen atoms at a concentration of $2 \times 10^{19} \text{ cm}^{-3}$ or less~~

a substrate;

at least one first insulating film formed over said substrate, said first insulating film comprising silicon oxide;

a semiconductor film comprising crystalline silicon formed over the first insulating film, said semiconductor film including at least one channel forming region, a source region and a drain region;

a gate insulating film comprising silicon oxide formed by oxidizing a surface of the semiconductor film;

a gate electrode formed over the channel forming region with the gate insulating film interposed therebetween;

a second insulating film comprising silicon nitride formed over said semiconductor film and said gate electrode;

a third insulating film comprising a resin; and

at least one electrode formed over said third insulating film and electrically connected to one of said source region and said drain region.

3.-43. (Canceled)

44. (New) A semiconductor device according to claim 2, wherein said semiconductor film contains hydrogen atoms at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $1 \times 10^{21} \text{ cm}^{-3}$.

45. (New) A semiconductor device according to claim 2, wherein said semiconductor film contains oxygen atoms, carbon and nitrogen at a concentration of $2 \times 10^{19} \text{ cm}^{-3}$ or less, respectively.

46. (New) A semiconductor device according to claim 2, wherein said source and drain regions are not overlapped with said gate insulating film.

47. (New) A semiconductor device according to claim 2, wherein said semiconductor device is an active matrix type liquid crystal display device.

48. (New) A semiconductor device comprising:
a substrate;

at least one first insulating film formed over said substrate, said first insulating film comprising silicon oxide;

a semiconductor film comprising crystalline silicon formed over the first insulating film, said semiconductor film including at least one channel forming region, a source region and a drain region;

a gate insulating film comprising a first layer and a second layer wherein said first layer comprises silicon oxide formed by oxidizing a surface of the semiconductor film and said second layer comprises silicon oxide formed on the first layer:

a gate electrode formed over the channel forming region with the gate insulating film interposed therebetween;

a second insulating film comprising silicon nitride formed over said semiconductor film and said gate electrode;

a third insulating film comprising a resin; and

at least one electrode formed over said third insulating film and electrically connected to one of said source region and said drain region.

49. (New) A semiconductor device according to claim 48, wherein said semiconductor film contains hydrogen atoms at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $1 \times 10^{21} \text{ cm}^{-3}$.

50. (New) A semiconductor device according to claim 48, wherein said semiconductor film contains oxygen atoms, carbon and nitrogen at a concentration of $2 \times 10^{19} \text{ cm}^{-3}$ or less, respectively.

51. (New) A semiconductor device according to claim 48, wherein said source and drain regions are not overlapped with said gate insulating film.

52. (New) A semiconductor device according to claim 48, wherein said semiconductor device is an active matrix type liquid crystal display device.

53. (New) A semiconductor device comprising:

a substrate;

at least one first insulating film formed over said substrate, said first insulating film comprising silicon oxide;

a semiconductor film comprising crystalline silicon formed over the first insulating film, said semiconductor film including at least one channel forming region, a source region, a drain region and at least one lightly doped region;

a gate insulating film comprising silicon oxide formed by oxidizing a surface of the semiconductor film;

a gate electrode formed over the channel forming region with the gate insulating film interposed therebetween;

a second insulating film comprising silicon nitride formed over said semiconductor film and said gate electrode;

a third insulating film comprising a resin; and

at least one electrode formed over said third insulating film and electrically connected to one of said source region and said drain region, and

wherein said lightly doped region has a lower impurity concentration than said source and drain regions.

54. (New) A semiconductor device according to claim 53, wherein said semiconductor film contains hydrogen atoms at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $1 \times 10^{21} \text{ cm}^{-3}$.

55. (New) A semiconductor device according to claim 53, wherein said semiconductor film contains oxygen atoms, carbon and nitrogen at a concentration of $2 \times 10^{19} \text{ cm}^{-3}$ or less, respectively.

56. (New) A semiconductor device according to claim 53, wherein said source and drain regions are not overlapped with said gate insulating film.

57. (New) A semiconductor device according to claim 53, wherein said lightly doped region is overlapped with said gate insulating film.

58. (New) A semiconductor device according to claim 53, wherein said semiconductor device is an active matrix type liquid crystal display device.

59. (New) A semiconductor device comprising:
a substrate;
at least one first insulating film formed over said substrate, said first insulating film comprising silicon oxide;
a semiconductor film comprising crystalline silicon formed over the first insulating film, said semiconductor film including at least one channel forming region, a source region, a drain region and at least one lightly doped region;
a gate insulating film comprising silicon oxide formed by oxidizing a surface of the semiconductor film;
a gate electrode formed over the channel forming region with the gate insulating film interposed therebetween;
a second insulating film comprising silicon nitride formed over said semiconductor film and said gate electrode;
a third insulating film comprising a resin; and

at least one electrode formed over said third insulating film and electrically connected to one of said source region and said drain region,

wherein said lightly doped region has a lower impurity concentration than said source and drain regions, and

wherein said lightly doped region is not overlapped with said gate electrode.

60. (New) A semiconductor device according to claim 59, wherein said semiconductor film contains hydrogen atoms at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $1 \times 10^{21} \text{ cm}^{-3}$.

61. (New) A semiconductor device according to claim 59, wherein said semiconductor film contains oxygen atoms, carbon and nitrogen at a concentration of $2 \times 10^{19} \text{ cm}^{-3}$ or less, respectively.

62. (New) A semiconductor device according to claim 59, wherein said source and drain regions are not overlapped with said gate insulating film.

63. (New) A semiconductor device according to claim 59, wherein said lightly doped region is overlapped with said gate insulating film.

64. (New) A semiconductor device according to claim 59, wherein said semiconductor device is an active matrix type liquid crystal display device.

65. (New) A semiconductor device comprising:

an n-channel type thin film transistor and a p-channel type thin film transistor formed over a substrate in a complementary manner, each of said n-channel type thin film transistor and said p-channel type thin film transistor comprising:

at least one first insulating film formed over said substrate, said first insulating film comprising silicon oxide;

a semiconductor film comprising crystalline silicon formed over the first insulating film, said semiconductor film including at least one channel forming region, a source region and a drain region;

a gate insulating film comprising silicon oxide formed by oxidizing a surface of the semiconductor film;

a gate electrode formed over the channel forming region with the gate insulating film interposed therebetween;

a second insulating film comprising silicon nitride formed over said semiconductor film and said gate electrode;

a third insulating film comprising a resin; and

at least one electrode formed over said third insulating film and electrically connected to one of said source region and said drain region.

66. (New) A semiconductor device according to claim 65, wherein said semiconductor film contains hydrogen atoms at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $1 \times 10^{21} \text{ cm}^{-3}$.

67. (New) A semiconductor device according to claim 65, wherein said semiconductor film contains oxygen atoms, carbon and nitrogen at a concentration of $2 \times 10^{19} \text{ cm}^{-3}$ or less, respectively.

68. (New) A semiconductor device according to claim 65, wherein said source and drain regions are not overlapped with said gate insulating film.

69. (New) A semiconductor device according to claim 65, wherein said semiconductor device is an active matrix type liquid crystal display device.

70. (New) A semiconductor device comprising:

a substrate;

at least one first insulating film formed over said substrate, said first insulating film comprising silicon oxide nitride;

a semiconductor film comprising crystalline silicon formed over the first insulating film, said semiconductor film including at least one channel forming region, a source region and a drain region;

a gate insulating film comprising silicon oxide formed by oxidizing a surface of the semiconductor film;

a gate electrode formed over the channel forming region with the gate insulating film interposed therebetween;

a second insulating film comprising silicon nitride formed over said semiconductor film and said gate electrode;

a third insulating film comprising a resin; and

at least one electrode formed over said third insulating film and electrically connected to one of said source region and said drain region.

71. (New) A semiconductor device according to claim 70, wherein said semiconductor film contains hydrogen atoms at a concentration of $1 \times 10^{17} \text{ cm}^{-3}$ to $1 \times 10^{21} \text{ cm}^{-3}$.

72. (New) A semiconductor device according to claim 70, wherein said semiconductor film contains oxygen atoms, carbon and nitrogen at a concentration of $2 \times 10^{19} \text{ cm}^{-3}$ or less, respectively.

73. (New) A semiconductor device according to claim 70, wherein said source and drain regions are not overlapped with said gate insulating film.

74. (New) A semiconductor device according to claim 70, wherein said semiconductor device is an active matrix type liquid crystal display device.